

Mineral Industry Surveys

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CRUSHED STONE AND SAND AND GRAVEL IN THE FIRST QUARTER OF 1999

An estimated 270.0 million metric tons of *crushed stone* were produced and shipped for consumption in the United States in the first quarter of 1999, an increase of 7.4% compared with the same period of 1998.

The estimated U.S. output of *construction sand and gravel* produced and shipped for consumption in the first quarter of 1999 was 180.0 million metric tons, an increase of 13.7% compared with the same period of 1998.

The above estimates are based on information reported to the U.S. Geological Survey quarterly sample survey by the *crushed stone* and *sand and gravel* producers. The increases in production of both *crushed stone* and *construction sand and gravel* are again mostly due to the continued high level of activity in private and commercial construction work during the first quarter of 1999, especially in the Western States. It should be noted that in the first quarter of 1999 there was also an increase of 13.2% in portland cement consumption, compared with the same period of 1998.

The USGS quarterly survey on domestic production of *crushed stone* and *construction sand and gravel* has become a significant indicator of construction activity at the national as well as State level. This survey is a sample survey that generates production-for-consumption estimates by quarters for each State, except Alaska and Hawaii, and each geographic division, based on information reported voluntarily by a limited number of producing companies. Occasionally, the number of companies reporting in an area varies from quarter to quarter, or previously reported data by some companies are revised. As a result of such changes in the size or the composition of the statistical sample, the estimated quantities for prior quarters are recalculated. The latest release of the Quarterly Mineral Industry Surveys contains the most recent estimated totals and percentage changes and supersedes previously published similar information.

The production-for-consumption estimates for *crushed stone* and *sand and gravel* are generated independently for each State and geographic division, which are treated as separate statistical sample areas. Therefore, some differences may exist between the total

for a division and the sum of State totals that are part of the same geographic division.

The estimated U.S. *crushed stone* sold or used in the first quarter of 1999 increased in most geographic divisions, especially the Western and Southern divisions, and decreased or remained almost unchanged in the Northeast and Midwest. Major increases were recorded in the Pacific (18.3%), the West South Central (18.0%), and the Mountain (17.5%) divisions.

The leading geographic divisions for the total amount of *crushed stone* sold or used in the first quarter of 1999 were the South Atlantic with 76.8 million metric tons, or 28.4% of the U.S. total, followed by the West South Central with 41.7 million metric tons, or 15.4%, and the East North Central division with 34.8 million metric tons, or 12.9%.

The estimated U.S. *construction sand and gravel* sold or used in the first quarter of 1999 increased in all geographic divisions, except the New England and the Middle Atlantic. Major increases were recorded in the Mountain (28.8%), the West North Central (18.7%), and the West South Central (16.1%) divisions.

The leading geographic divisions for the total amount of *construction sand and gravel* sold or used in the first quarter of 1999 were the Mountain with 45.3 million metric tons, or 25.2% of the U.S. total, followed by the Pacific with 35.4 million metric tons, or 19.7%, and the East North Central with 25.0 million metric tons, or 13.9%. The estimated totals by quarters for the geographic divisions do not include Alaska and Hawaii.

Despite the increases recorded at the national and regional level, compared with the first quarter of 1998, production-for-consumption of *crushed stone* in the first quarter of 1999 declined in 16 of the 40 estimated States, with the largest decreases occurring in Indiana (-10.5%), Nevada (-17.8%), New Hampshire (-10.1%), New Mexico (-23.9%), New York (-17.4%), Ohio (-15.2%), and Oregon (-11.2%). The five leading States in the production-for-consumption of *crushed stone* in the first quarter of 1999 were Texas, Florida, Georgia, Missouri, and North Carolina. Their combined total production-for-consumption represented 34.7% of the U.S. total.

Production-for-consumption of *construction sand and gravel* declined in 13 of the 44 estimated States, with major decreases occurring in Connecticut (-26.6%), Kansas (-11.7%), Maryland (-18.7%), New Jersey (-19.5%), New Mexico (-14.9%), North Carolina (-15.9%), and Washington (-17.8%). The six leading States in the production- for-consumption of *sand and gravel* in the first quarter of 1999 were California, Texas, Arizona, Utah, Washington, and Colorado. Their combined total production-for-consumption represented 44.3% of the U.S. total.

A total of 360 companies representing *crushed stone* and *construction sand and gravel* producers reported production-for-consumption information to the first quarter sample survey. The

large participation of the producing companies in this survey is reflected by the high percentage coverage obtained for most geographic divisions and States. The percentage coverage indicates how much of the total estimated production-for-consumption for a State or a geographic division was actually reported by companies participating in this survey and was used to generate the estimated totals for that particular area.

The percent changes between the estimated production-for-consumption for the current quarter and the same quarter of the prior year included in this report are important indicators of the production/consumption trends occurring in a particular area of the country.

TABLE 1
CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY DIVISION 1/
(Thousand metric tons and thousand dollars)

Region/Division	1998						1999			
	Quantity					Value	Quantity	Per- cent change 3/	Percent cover- age	Number of cos. 4/
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Total 2/	total 2/				
Northeast:										
New England	3,000	10,400	12,100	10,200	35,600	257,000	3,100	5.3	45	17
Middle Atlantic	21,500	43,500	53,900	42,800	162,000	1,060,000	20,200	-6.0	59	34
Midwest:										
East North Central	36,300	77,000	88,800	77,500	280,000	1,420,000	34,800	-4.0	68	43
West North Central	27,800	46,200	49,700	42,100	166,000	911,000	27,900	0.3	53	40
South:										
South Atlantic	67,100	92,200	100,700	92,600	353,000	2,290,000	76,800	14.4	84	53
East South Central	32,800	45,700	51,800	45,500	176,000	1,000,000	32,900	0.3	69	19
West South Central	35,400	44,200	45,900	40,300	166,000	839,000	41,700	18.0	65	28
West:										
Mountain	10,100	15,400	15,500	12,100	53,100	312,000	11,900	17.5	44	20
Pacific 5/	17,500	23,200	26,500	24,100	91,300	580,000	20,800	18.3	43	26
Total 2/	252,000	398,000	445,000	387,000	6/1,500,000	6/8,800,000	270,000	7.4	XX	XX

XX Not applicable.

1/ Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

2/ Data may not add to totals shown because of independent rounding and differences between projected totals by States and by divisions.

3/ All percentage changes are calculated using unrounded totals.

4/ Number of companies reporting for the quarterly survey.

5/ Does not include Alaska and Hawaii.

6/ Includes Alaska, Hawaii, and "Other" totals; see Table 2, footnote 7.

TABLE 2
CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE 1/
(Thousand metric tons and thousand dollars)

State	1998						1999			
	Quantity					Value	Quantity	Per- cent change 3/	Percent cover- age	Number of cos. 4/
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Total 2/	total 2/				
Alabama	9,900	11,800	12,700	11,200	45,600	308,000	11,200	13.5	75	13
Alaska 5/	--	--	--	--	3,200	22,400	--	--	--	--
Arizona 6/	--	--	--	--	7,400	43,300	--	--	--	--
Arkansas	8,000	11,000	10,900	8,700	38,600	241,000	7,800	-3.3	50	10
California	10,900	14,100	16,500	15,700	57,200	395,000	12,100	11.2	48	14
Colorado	2,500	3,700	3,400	2,400	12,000	78,900	2,600	6.0	68	6
Connecticut	300	2,600	2,300	2,100	7,300	73,000	400	33.2	31	4
Delaware 5/	--	--	--	--	--	--	--	--	--	--
Florida 7/	19,800	20,700	20,400	20,800	81,700	449,000	21,700	9.1	65	10
Georgia 7/	13,600	18,300	20,400	18,600	71,000	476,000	16,800	23.0	102	8
Hawaii 5/	--	--	--	--	5,000	50,000	--	--	--	--
Idaho 7/	300	500	900	1,300	3,000	13,500	500	56.1	51	3
Illinois	8,200	17,700	22,300	20,100	68,300	376,000	9,600	17.7	72	12
Indiana 7/	9,500	15,700	19,100	16,500	60,800	289,000	8,500	-10.5	75	13
Iowa	5,600	11,500	12,300	11,100	40,400	234,000	5,200	-6.8	53	7
Kansas	4,700	6,800	6,100	5,100	22,600	102,000	4,900	6.1	64	10
Kentucky	11,100	15,400	18,300	16,600	61,300	282,000	12,200	10.1	56	7
Louisiana 6/ 7/	--	--	--	--	1,600	16,200	--	--	--	--
Maine	300	800	1,100	700	2,800	16,800	400	31.8	83	5
Maryland 7/	3,300	5,600	6,500	5,600	21,000	126,000	3,300	0.6	115	9
Massachusetts	1,300	3,700	4,200	3,900	13,100	91,700	1,200	-2.0	61	5
Michigan 7/	3,200	13,300	12,800	12,700	42,000	158,000	3,000	-7.7	76	9
Minnesota	700	4,700	6,300	3,700	15,400	88,500	800	23.0	52	5
Mississippi 6/ 7/	--	--	--	--	4,900	29,400	--	--	--	--
Missouri	15,100	18,800	20,700	19,700	74,300	409,000	15,100	0.0	45	16
Montana 6/	--	--	--	--	2,700	12,100	--	--	--	--
Nebraska	1,300	2,100	2,000	1,600	7,000	46,900	1,300	-0.3	93	6
Nevada	1,200	1,700	1,500	1,200	5,600	46,200	1,000	-17.8	23	4
New Hampshire 7/	200	600	700	700	2,200	14,100	200	-10.1	118	4
New Jersey	3,700	6,400	7,600	7,000	24,800	174,000	3,700	-1.1	53	7
New Mexico 7/	1,000	1,800	1,400	600	4,700	28,200	700	-23.9	35	3
New York	4,000	13,100	17,100	11,800	46,000	322,000	3,300	-17.4	56	10
North Carolina	11,800	17,400	18,900	16,900	65,000	507,000	13,400	14.1	99	12
North Dakota 5/	--	--	--	--	--	--	--	--	--	--
Ohio	12,600	23,000	25,300	19,900	80,900	485,000	10,700	-15.2	63	12
Oklahoma 7/	6,500	8,200	8,700	9,100	32,500	117,000	7,900	21.2	90	11
Oregon	3,600	5,300	6,200	4,500	19,700	98,500	3,200	-11.2	37	11
Pennsylvania	13,600	24,000	29,200	24,000	90,900	564,000	13,100	-4.1	63	20
Rhode Island 5/	--	--	--	--	1,800	10,800	--	--	--	--
South Carolina	5,700	7,100	7,500	7,100	27,400	216,000	6,600	16.8	98	8
South Dakota	700	1,800	2,100	1,400	6,000	30,600	700	-1.0	80	5
Tennessee	10,600	16,900	19,600	16,900	64,000	384,000	10,000	-6.2	74	8
Texas	20,400	25,000	26,100	21,500	93,000	465,000	26,700	30.8	59	12
Utah	2,300	3,600	3,700	2,300	11,800	54,300	2,600	14.8	38	5
Vermont 6/	--	--	--	--	8,400	50,400	--	--	--	--
Virginia	11,500	19,300	22,400	20,400	73,600	442,000	13,100	14.2	64	11
Washington	3,100	3,900	3,700	3,700	14,400	86,400	6,000	96.9	32	5
West Virginia	1,900	3,700	4,200	3,200	13,000	78,000	2,000	5.9	54	7
Wisconsin	2,700	7,400	9,500	8,000	27,600	110,000	3,000	10.8	45	8
Wyoming	1,000	1,600	1,700	1,600	5,900	35,400	1,600	67.1	84	4
Other	--	--	--	--	11,000	60,000	--	--	--	--
Total	XX	XX	XX	XX	1,500,000	8,800,000	XX	XX	XX	XX

XX Not applicable.

1/ Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

2/ Data may not add to totals shown because of independent rounding and differences between projected totals by States.

3/ All percentage changes are calculated using unrounded totals.

4/ Number of companies reporting for the quarterly survey.

5/ State not included in quarterly survey.

6/ Owing to a low number of reporting companies, no production estimates by quarters were generated.

7/ To avoid disclosing proprietary data, certain State totals do not include all kinds of stone produced within the State; the portion not shown has been included with "Other."

TABLE 3
SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY DIVISION 1/
(Thousand metric tons and thousand dollars)

Region/Division	1998						1999			
	Quantity					Value total 2/	Quantity 1st qtr.	Per- cent change 3/	Percent cover- age	Number of cos. 4/
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Total 2/					
Northeast:										
New England	5,600	11,400	14,500	11,400	43,000	215,000	5,200	-7.1	24	22
Middle Atlantic	9,200	20,300	23,700	15,400	68,600	373,000	8,400	-9.4	25	23
Midwest:										
East North Central	22,900	56,700	66,600	53,600	200,000	828,000	25,000	9.3	44	48
West North Central	8,500	29,700	35,700	23,700	97,600	351,000	10,100	18.7	25	34
South:										
South Atlantic	15,600	19,600	19,200	18,000	72,400	354,000	16,800	8.3	56	39
East South Central	8,800	14,000	12,700	11,500	47,100	208,000	9,000	1.5	37	20
West South Central	21,500	28,400	26,700	23,800	100,000	471,000	24,900	16.1	37	14
West:										
Mountain	35,200	53,400	54,800	46,000	189,000	797,000	45,300	28.8	42	37
Pacific 5/	31,200	45,500	58,800	52,700	188,000	1,050,000	35,400	13.6	51	26
Total 2/	158,000	279,000	313,000	256,000	6/1,020,000	6/4,710,000	180,000	13.7	XX	XX

XX Not applicable.

1/Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

2/Data may not add to totals shown because of independent rounding, and differences between projected totals by States and by divisions.

3/All percentage changes are calculated using unrounded totals.

4/Number of companies reporting for the quarterly survey.

5/Does not include Alaska and Hawaii.

6/Includes Alaska and Hawaii.

TABLE 4
SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE 1/
(Thousand metric tons and thousand dollars)

State	1998						1999			
	Quantity					Value	Quantity 1st qtr.	Per- cent change 3/	Percent cover- age	Number of cos. 4/
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Total 2/	Total 2/				
Alabama	3,200	3,900	3,800	3,600	14,500	65,600	3,400	7.7	42	8
Alaska 5/	--	--	--	--	12,500	57,400	--	--	--	--
Arizona	10,100	12,900	11,900	12,000	46,900	229,000	13,700	35.9	70	8
Arkansas	2,300	3,200	3,200	2,600	11,300	52,800	2,400	7.5	62	4
California	19,600	28,700	38,800	37,800	125,000	752,000	24,300	23.6	59	15
Colorado	6,300	10,600	11,600	9,300	37,700	172,000	7,800	23.9	44	7
Connecticut	1,100	1,800	2,000	1,700	6,710	31,600	800	-26.6	28	5
Delaware 6/	--	--	--	--	2,240	11,200	--	--	--	--
Florida	4,700	5,300	5,000	5,100	20,100	81,200	5,000	7.4	76	9
Georgia	1,200	1,800	2,200	1,800	7,000	27,800	2,000	57.8	31	6
Hawaii 5/	--	--	--	--	378	4,210	--	--	--	--
Idaho	2,200	4,100	5,500	3,700	15,500	46,000	2,100	-8.3	22	5
Illinois	3,800	9,900	10,900	9,100	33,800	149,000	4,000	3.6	50	10
Indiana	4,500	6,800	6,600	5,700	23,600	103,000	5,500	20.7	54	8
Iowa	1,000	3,700	4,800	3,500	13,000	54,700	1,000	1.5	28	6
Kansas	1,800	2,800	3,000	2,100	9,750	28,300	1,600	-11.7	34	4
Kentucky	1,500	2,000	2,500	1,900	7,870	26,500	1,400	-3.3	21	3
Louisiana	2,600	3,800	3,200	3,000	12,600	58,300	3,100	18.7	58	4
Maine	300	1,700	3,000	2,100	7,100	33,100	500	66.9	22	4
Maryland	2,700	2,900	3,400	2,700	11,700	78,200	2,200	-18.7	43	6
Massachusetts	2,200	3,900	3,900	4,000	14,000	76,600	2,200	0.1	18	6
Michigan	5,700	18,100	22,400	15,500	61,700	229,000	5,800	1.2	41	10
Minnesota	1,100	11,200	12,800	7,800	32,900	124,000	1,500	38.7	27	10
Mississippi	2,600	4,600	4,400	4,100	15,600	73,300	2,600	0.9	40	6
Missouri	1,100	2,000	2,900	2,300	8,360	32,100	1,700	51.5	51	5
Montana 6/	--	--	--	--	8,760	33,100	--	--	--	--
Nebraska	1,200	5,200	4,900	3,100	14,400	50,600	1,600	31.5	21	6
Nevada	5,400	7,000	7,200	5,600	25,200	121,000	5,700	5.4	31	5
New Hampshire	1,300	2,300	3,300	1,900	8,780	39,000	1,200	-7.7	34	5
New Jersey	4,300	4,600	4,900	4,300	18,100	99,200	3,500	-19.5	25	4
New Mexico	2,300	3,300	3,000	2,000	10,700	55,000	2,000	-14.9	41	3
New York	3,100	10,400	12,500	6,100	32,100	167,000	3,400	7.5	21	11
North Carolina	2,300	2,900	2,700	2,600	10,400	59,500	2,000	-15.9	41	5
North Dakota 5/	--	--	--	--	9,360	27,600	--	--	--	--
Ohio	5,700	13,000	17,500	14,000	50,100	244,000	6,100	7.8	45	14
Oklahoma	1,800	2,500	2,500	2,100	8,930	32,300	2,100	14.6	44	6
Oregon	2,800	4,400	6,000	3,500	16,600	89,700	2,800	1.1	28	4
Pennsylvania	1,800	5,400	6,500	4,600	18,400	107,000	1,700	-9.7	34	10
Rhode Island 6/	--	--	--	--	2,070	17,000	--	--	--	--
South Carolina	1,800	2,400	2,300	2,300	8,770	33,800	2,200	26.0	57	5
South Dakota	1,000	2,500	4,200	2,100	9,840	34,100	900	-8.2	16	5
Tennessee	1,600	3,400	2,200	2,000	9,070	42,600	1,400	-8.6	37	6
Texas	15,000	18,700	17,700	16,100	67,500	328,000	17,800	18.3	28	8
Utah	5,000	12,200	14,000	9,500	40,700	125,000	8,300	64.9	35	4
Vermont	300	1,100	1,400	1,500	4,300	18,000	300	4.6	22	4
Virginia	2,200	3,100	2,800	2,500	10,600	54,000	2,700	21.0	66	8
Washington	9,500	13,500	14,300	9,300	46,500	213,000	7,800	-17.8	36	9
West Virginia	200	500	500	400	1,600	7,860	200	30.1	101	4
Wisconsin	2,400	9,100	9,500	9,600	30,600	103,000	2,800	16.0	35	11
Wyoming	800	1,000	900	1,200	3,850	15,800	1,000	25.7	16	3
Total	XX	XX	XX	XX	1,020,000	4,710,000	XX	XX	XX	XX

XX Not applicable.

1/ Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

2/ Data may not add to totals shown because of independent rounding and differences between projected totals by States.

3/ All percentage changes are calculated using unrounded totals.

4/ Number of companies reporting for the quarterly survey.

5/ State not included in quarterly survey.

6/ Owing to a low number of reporting companies, no production estimates by quarters were generated.